

WHAT IS CLAIMED IS:

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1. A reception apparatus comprising:
a plurality of channel estimation means;
5 combining means for combining signals from paths in
accordance with outputs from said plurality of channel
estimation means; and
evaluating means for evaluating the outputs from said
plurality of channel estimation means in accordance with
10 outputs from said combining means which respectively
correspond to said plurality of channel estimation means.
 2. The apparatus according to claim 1, wherein said
evaluation means comprises selection means for selecting one
of the outputs from said combining means which respectively
15 correspond to said plurality of channel estimation means in
accordance with an evaluation.
 3. The apparatus according to claim 1, wherein said
combining means comprises a plurality of combiners
corresponding to said plurality of channel estimation means.
 - 20 4. The apparatus according to claim 1, wherein said
channel estimation means estimates a channel from a de-spread
reception signal.
 5. The apparatus according to claim 1, wherein one of said
plurality of channel estimation means estimates a channel
25 by an interpolation method.
 6. The apparatus according to claim 1, wherein one of said

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plurality of channel estimation means estimates a channel by a double slot averaging method.

7. The apparatus according to claim 1, wherein said evaluation means comprises decoding means for decoding an
5 output from said combining means in accordance with an evaluation.

8. The apparatus according to claim 1, wherein said evaluation means evaluates the outputs from said plurality of channel estimation means in accordance with error rates
10 of the outputs from said combining means which respectively correspond to the outputs from said plurality of channel estimation means.

9. The apparatus according to claim 1, wherein said evaluation means comprises decision means for performing
15 symbol decision in accordance with the outputs from said combining means which respectively correspond to said plurality of channel estimation means, and evaluates the outputs from said plurality of channel estimation means in accordance with error rates of outputs from said decision
20 means.

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10. The apparatus according to claim 1, wherein said evaluation means evaluates the outputs from said plurality of channel estimation means with respect to pilot symbols.

11. The apparatus according to claim 1, wherein said
25 evaluation means evaluates the outputs from said plurality of channel estimation means with respect to periodically

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received pilot symbols.

12. The apparatus according to claim 1, wherein said evaluation means evaluates the outputs from said plurality of channel estimation means in units of frames.

5 13. The apparatus according to claim 1, wherein said evaluation means evaluates the outputs from said plurality of channel estimation means with respect to frames including frame error detection codes.

10 14. The apparatus according to claim 1, wherein said evaluation means comprises selection means for selecting one of the outputs from said combining means which respectively correspond to said plurality of channel estimation means in units of frames in accordance with an evaluation.

15 15. The apparatus according to claim 1, wherein said evaluation means comprises decoding means for decoding the outputs from said combining means which respectively correspond to said plurality of channel estimation means, and evaluates the outputs from said plurality of channel estimation means on the basis of errors of the outputs from
20 said decoding means which correspond to the outputs from said combining means which respectively correspond to said plurality of channel estimation means.

Sub A11 16. The apparatus according to claim 1, wherein said evaluation means comprises decision means for performing
25 symbol decision with respect to the outputs from said combining means which respectively correspond to said

plurality of channel estimation means, and evaluates the
outputs from said plurality of channel estimation means in
accordance with errors based on decision made by said
decision means with respect to said plurality of channel
5 estimation means.

17. The apparatus according to claim 1, wherein said
evaluation means comprises decision means for performing
symbol decision with respect to the outputs from said
combining means which respectively correspond to said
10 plurality of channel estimation means, and evaluates the
outputs from said plurality of channel estimation means in
accordance with an average of errors based on decision made
by said decision means with respect to said plurality of
channel estimation means.

15 18. A reception apparatus comprising:

a plurality of channel estimation means;

combining means for combining signals from paths in
accordance with outputs from said plurality of channel
estimation means;

20 detection means for detecting errors of outputs from
said combining means which respectively correspond to said
plurality of channel estimation means; and

selection means for selecting one of the outputs from
said combining means which respectively correspond to said
25 plurality of channel estimation means in accordance with an
error detected by said detection means.

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19. The apparatus according to claim 18, wherein said combining means comprises a plurality of combiners corresponding to said plurality of channel estimation means.

20. The apparatus according to claim 18, wherein said
5 channel estimation means estimates a channel from a de-spread reception signal.

21. The apparatus according to claim 18, wherein one of said plurality of channel estimation means estimates a channel by an interpolation method.

10 22. The apparatus according to claim 18, wherein one of said plurality of channel estimation means estimates a channel by a double slot averaging method.

23. The apparatus according to claim 18, wherein said selection means comprises decoding means for decoding one
15 of outputs from said combining means.

24. The apparatus according to claim 18, wherein said detection means comprises decision means for performing symbol decision in accordance with the outputs from said combining means which respectively correspond to said
20 plurality of channel estimation means, and selects one of the outputs from said combining means in accordance with an error rate of an output from said decision means.

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25 25. The apparatus according to claim 18, wherein said selection means selects one of the outputs from said combining means in accordance with an error detected with respect to a pilot symbol.

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26. The apparatus according to claim 18, wherein said selection means selects one of the outputs from said combining means in accordance with an error detected with respect to periodically received pilot symbols.

5 27. The apparatus according to claim 18, wherein said selection means selects one of the outputs from said combining means in units of frames.

28. The apparatus according to claim 18, wherein said selection means selects one of the outputs from said
10 combining means in units of frames including frame error detection codes.

29. The apparatus according to claim 18, wherein said detection means comprises decoding means for decoding the outputs from said combining means which respectively
15 correspond to said plurality of channel estimation means, and selects one of the outputs from said combining means on the basis of errors of outputs from said decoding means corresponding to the outputs from said combining means which respectively correspond to said plurality of channel
20 estimation means.

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30. The apparatus according to claim 18, wherein said detection means comprises decision means for performing symbol decision with respect to the outputs from said combining means which respectively correspond to said
25 plurality of channel estimation means, and selects one of the outputs from said combining means in accordance with

errors based on decision made by said decision means with respect to said plurality of channel estimation means.

31. The apparatus according to claim 18, wherein said detection means comprises decision means for performing
5 symbol decision with respect to the outputs from said combining means which respectively correspond to said plurality of channel estimation means, and selects one of the outputs from said combining means in accordance with an average of errors based on decision made by said decision
10 means with respect to said plurality of channel estimation means.

32. A reception method comprising the steps of:
performing a plurality of channel estimations;
combining signals from paths in accordance with the
15 respective results of the plurality of channel estimations;
and

evaluating the results of the plurality of channel estimations in accordance with combination results obtained in the combining step for the plurality of channel
20 estimations.

33. The method according to claim 32, wherein the estimation step comprises the selection step of selecting one of the combination results obtained in the combining step for the plurality of channel estimations.

25 34. The method according to claim 32, wherein the channel estimation step comprises estimating a channel from a

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de-spread reception signal.

35. The method according to claim 32, wherein the evaluation step comprises evaluating the plurality of channel estimations in accordance with error rates of the combination results obtained in the combining step which respectively correspond to the plurality of channel estimations.

36. The method according to claim 32, wherein the evaluation step comprises performing symbol decision in accordance with the combination results in the combining step which respectively correspond to the plurality of channel estimations, and evaluating the plurality of channel estimations in accordance with error rates of the decision results in the decision step.

37. The method according to claim 32, wherein the evaluation step comprises evaluating the plurality of channel estimations with respect to pilot symbols.

38. The method according to claim 32, wherein the evaluation step comprises evaluating the plurality of channel estimations in units of frames.

39. The method according to claim 32, wherein the evaluation step comprises decoding the combination results in the combining step which respectively correspond to the plurality of channel estimations, and evaluating the plurality of channel estimations on the basis of errors of decoding results in the decoding step which correspond to

the combination results in the combining step which respectively correspond to the plurality of channel estimations.

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5 40. The method according to claim 32, wherein the evaluation step comprises performing symbol decision with respect to outputs combined in the combining step which respectively correspond to the plurality of channel estimations, and evaluating the plurality of channel estimations in accordance with errors based on decision in
10 the decision step which respectively correspond to the plurality of channel estimations.

41. A reception method comprising the steps of:
performing a plurality of channel estimations;
combining signals from paths in accordance with the
15 respective results of the plurality of channel estimations;
detecting errors of combination results in the combining step which respectively correspond to the plurality of channel estimations; and
selecting one of the combination results in the
20 combining step which respectively correspond to the plurality of channel estimations in accordance with an error detected in the detection step.

42. The method according to claim 41, wherein the channel estimation step comprises estimating a channel from a
25 de-spread reception signal.

43. The method according to claim 41, wherein the selection

step comprises performing symbol decision in accordance with the combination results in the combining step which respectively correspond to the plurality of channel estimations, and selecting one of the combination results in the combining step in accordance with error rates of decision results in the decision step.

10 44. The method according to claim 41, wherein the selection

Sub A1 } 45. The method according to claim 41, wherein the selection step comprises selecting one of the combination results in the combining step in units of frames.

15 46. The method according to claim 41, wherein the selection step comprises decoding the combination results in the combining step which respectively correspond to the plurality of channel estimations, and selecting one of outputs combined in the combining step on the basis of errors of decoding results in the decoding step which correspond to the combination results in the combining step which respectively correspond to the plurality of channel estimations.

Sub A1 } 25 47. The method according to claim 41, wherein the selection step comprises performing symbol decision with respect to outputs combined in the combining step which respectively correspond to the plurality of channel estimations, and

evaluating the plurality of channel estimations in
accordance with errors based on decision in the decision step
with respect to the plurality of channel estimations.

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